

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A driving method for an electro-optical device which includes, corresponding to an intersection of a scanning line and a data line, a power line, an electro-optical element, a driving transistor that controls a current flowing through the electro-optical element, and a switching transistor that controls the driving transistor, the driving method comprising:

a setting step of supplying a first on-signal to the switching transistor via the scanning line, and of supplying a set signal to select a conducting state or a non-conducting state of the driving transistor to the driving transistor via the data line and the switching transistor in accordance with a period for which the first on-signal is supplied; ~~and~~

a resetting step of supplying a second on-signal to the switching transistor via the scanning line, and of supplying a reset signal to select the non-conducting state of the driving transistor to the driving transistor via the data line and the switching transistor in accordance with a period for which the second on-signal is supplied; and

a horizontal scanning period that includes a first sub horizontal scanning period to perform the setting step and a second sub horizontal scanning period to perform the resetting step; wherein

the period for which the first on-signal is supplied coincides with a period for which the set signal is supplied.

2. (Canceled)

3. (Previously Presented) The driving method for an electro-optical device according to claim 1, further including performing the setting step in a first horizontal scanning period, and performing the resetting step in a second horizontal scanning period.

4. (Previously Presented) The driving method for an electro-optical device according to claim 1, further including obtaining a gray-scale by performing a plurality of set-reset operations, each set-reset operation including the setting step and the resetting step.

5. (Previously Presented) The driving method for an electro-optical device according to claim 4, further including providing a time interval between the setting step and the resetting step that is different for each of the plurality of set-reset operations.

6. (Previously Presented) The driving method for an electro-optical device according to claim 4, further including providing the time interval between the setting step and the resetting step for each of the plurality of set-reset operations to be completely different from each other, and the ratio of time intervals for the plurality of set-reset operations being set to be about $1:2: \dots :2^n$ (n is an integer of one or more) based on the minimum time interval.

7. (Previously Presented) The driving method for an electro-optical device according to claim 1, further including providing the set signal to be a signal for setting the conducting state for the driving transistor rather than the signal for selecting the conducting state or the non-conducting state of the driving transistor.

8. (Previously Presented) The driving method for an electro-optical device according to claim 1, further including driving the electro-optical element including an organic electro-luminescence element.

9. (Previously Presented) An electro-optical device driven by the driving method according to claim 1.

10. (Currently Amended) An electro-optical device, comprising:

a scanning line;

a data line;

a power line;

an electro-optical element corresponding to an intersection of the scanning line and the data line;

a driving transistor that controls a current flowing through the electro-optical element;

a switching transistor that controls the driving transistor; ~~and~~

a drive circuit that generates a signal to set the switching transistor to be an on-state or an off-state, and that generates a signal to set or reset the driving transistor in accordance with the signal to set the switching transistor to be the on-state or the off-state; and

a horizontal scanning period that includes a first sub horizontal scanning period to perform the setting step and a second sub horizontal scanning period to perform the resetting step; wherein

a period for which a first on-signal is supplied to the switching transistor coincides with a period for which the set signal is supplied.

11. (Currently Amended) An electro-optical device, comprising:

a scanning line;

a data line;

a power line;

an electro-optical element corresponding to an intersection at the scanning line and the data line;

a driving transistor that controls a current flowing through the electro-optical element;

a switching transistor that controls the driving transistor;

a scanning line driver that supplies a signal to set the switching transistor to be an on-state or an on-state to the scanning line;

a data line driver that supplies a signal to set or reset the driving transistor to the data line in accordance with an operation of the scanning line driver; ~~and~~

a period of supplying the signal to reset the driving transistor via the data line within a vertical scanning period being substantially constant; and

a horizontal scanning period that includes a first sub horizontal scanning period to perform the setting step and a second sub horizontal scanning period to perform the resetting step; wherein

a period for which a first on-signal is supplied to the switching transistor coincides with a period for which the set signal is supplied.

12. (Currently Amended) An electro-optical device, comprising:

a scanning line;

a data line;

a power line;

an electro-optical element corresponding to an intersection of the scanning line and the data line;

a driving transistor that controls a current flowing through the electro-optical element; ~~and~~

a switching transistor that controls the driving transistor, an on-signal to perform a setting step of setting the electro-optical element and a resetting step of resetting the electro-optical element being supplied to the switching transistor via the scanning line;

a horizontal scanning period that includes a first sub horizontal scanning period to perform the setting step and a second sub horizontal scanning period to perform the resetting step; and

the number of the signal to perform the setting step and the signal to perform the resetting step being substantially the same; wherein

a period for which a first on-signal is supplied to the switching transistor coincides with a period for which the set signal is supplied.

13. (Previously Presented) The electro-optical device according to claim 10, the electro-optical element including an organic electro-luminescence element.

14. (Previously Presented) An electronic apparatus, comprising:
the electro-optical device set forth in claim 9.

15. (Currently Amended) A driving method for an electro-optical device which includes, corresponding to an intersection of a scanning line and a data line, an electro-optical element, a driving transistor that controls a current flowing through the electro-optical element, and a switching transistor that controls the driving transistor, the driving method comprising:

a setting step of supplying a first on-signal to the switching transistor via the scanning line, and of supplying a set signal to select a conducting state or a non-conducting state of the driving transistor to the driving transistor via the data line and the switching transistor in accordance with a period for which the first on-signal is supplied;

a resetting step of supplying a second on-signal to the switching transistor via the scanning line, and of supplying a reset signal to select the non-conducting state of the driving transistor to the driving transistor via the data line and the switching transistor in accordance with a period for which the second on-signal is supplied, the setting step and the resetting step forming a set-reset operation; ~~and~~

a plurality of the set-reset operation being performed within one frame period, at least two set-reset operations of the plurality of the set-reset operation having mutually different time lengths; and

a horizontal scanning period that includes a first sub horizontal scanning period to perform the setting step and a second sub horizontal scanning period to perform the resetting step; wherein

the period for which the first on-signal is supplied coincides with a period for which the set signal is supplied.

16. (Currently Amended) An electro-optical device, comprising:

a scanning line;

a data line;

a power line;

an electro-optical element corresponding to an intersection of the scanning line and the data line;

a driving transistor that controls a current flowing through the electro-optical element;

a switching transistor that controls the driving transistor, an on-signal to perform a setting step of setting the electro-optical element and a resetting step of resetting the electro-optical element being supplied to the switching transistor via the scanning line;

a horizontal scanning period that includes a first sub horizontal scanning period to perform the setting step and a second sub horizontal scanning period to perform the resetting step; and

a plurality of the pairs of the setting step and the resetting step being performed within one frame period; wherein

a period for which a first on-signal is supplied to the switching transistor coincides with a period for which the set signal is supplied.